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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,741

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Craig B. Gentry

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MACPHERSON KWOK CHEN & HEID LLP

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SUITE 400

SAN JOSE, CA 95110

EXAMINER

ARMOUCHE, HADI S

ART UNIT

PAPER NUMBER

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/521,741	<b>Applicant(s)</b> GENTRY, CRAIG B.	
	<b>Examiner</b> HADI ARMOUCHE	<b>Art Unit</b> 2432	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-183 is/are pending in the application.
- 4a) Of the above claim(s) 27-116 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 and 117-183 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of group 1 in the reply filed on 09/15/2008 is acknowledged.
2. Claims 1, 9, 15, 17-18, 24 and 26 have been amended. Claims 27-116 have been cancelled. Claims 117-154 and 155-183 have been added. Claims 1-26, 117-154 and 155-183 remain pending.

### ***Information Disclosure Statement***

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.
4. The references are listed on paragraph 10, 13, 82, 86, 87, 130, 143.

### ***Specification***

5. The disclosure (paragraphs 13, 130, 143) is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

6. In the abstract of the preliminary amendment filed on 01/18/2005, the usage of: "the present invention.....The invention allows....." is not allowed. See 37 CFR 1.438, Gazette (No. 5/1978) and MPEP 1826.

7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Drawings***

8. The drawing (figure 8) is objected to because it refers to "Generate Ciphertext using BasicHIDE Encryption Formula" element by 530b. It should be labeled 830b. Similarly for element 532 of figure 8 should be labeled 832 to be consistent with paragraphs 117 and 118 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as

Art Unit: 2432

either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

9. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

10. Misnumbered claim 126 (the 2nd one) has been renumbered 155. A new set of claims with the correct numbering is required in response to this action.

### ***Claim Rejections - 35 USC § 112***

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. The newly added claims 156-183 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims recite: "*a manufacture comprising a computer-readable computer program operable to cause a*

Art Unit: 2432

*computer to perform the method...*". There is no description of the claim limitation in the application as filed as to what the claim encompasses.

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 2-17, 19-26, 117-183 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are confusing for they further define operations (a)-(d) and (f) for claim 1 and operations (a)-(e) and (g) of claim 18 in which the independent claim does not require. The independent claim recites: "*the method comprising one or more operations...*" For the purpose of examination, examiner examined one of these operations namely operation (S) which comprises of operation (e). It is unclear whether the other operations are essential to the method of claims 1 and 18 to operate.

15. Claims 156-183 are further rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recite "*a manufacture comprising a computer-readable computer program operable to cause a computer to perform the method...*". It is unclear what "manufacture" encompasses.

16. Claims 1 and 18 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As for claim 1, the operation (R) comprises operations (a) and (f) only. Limitation (f) recites the limitation "*decrypting the encrypted*

Art Unit: 2432

*digital message*". There is insufficient antecedent basis for this limitation in the operation (R). Similarly for operation (S) which comprises operation (e) only. Limitation (e) recites the limitation "...at least the recipient public key and the recipient encryption key....". There is insufficient antecedent basis for this limitation in the operation (S). Similarly for operation (Au) which comprises operations (c) and (d) only. Limitation (d) recites the limitation "...and a key formed from the recipient encryption key.....". There is insufficient antecedent basis for this limitation in the operation (Au).

17. Claim 18 is rejected for similar reasons in operations (e), (f) and (g).

***Claim Rejections - 35 USC § 101***

18. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-26, 117-183 are rejected under 35 U.S.C. 101 based on Supreme Court precedent and recent Federal Circuit decisions, a 35 U.S.C § 101 process must (1) be tied to a particular machine or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. In re Bilski et al, 88 USPQ 2d 1385 CAFC (2008); Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780, 787-88 (1876).

An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps. Thus, to qualify as a § 101 statutory process, the claim should positively recite the particular machine to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively

Art Unit: 2432

recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

Here, applicant's method steps are not tied to a particular machine and do not perform a transformation. Thus, the claims are non-statutory. *Note the Board of Patent Appeals Informative Opinion Ex parte Langemyer et al.*

19. Claims 156-183 are rejected under 35 U.S.C. 101 in light of 35 U.S.C. 112, second paragraph rejection above because the claimed invention is directed to non-statutory subject matter.

MPEP 2106.01 reads as follows: Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*,



Art Unit: 2432

33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim 156 defines a system/manufacture embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" - MPEP 2106.01). Although the preamble of claim 156 recites a manufacture, the remainder of the claim does not support the preamble. The claimed features and elements of claim 156 do not include hardware components or features that are necessarily implemented in hardware. The "system" appears directed to software, per se, lacking hardware to enable any functionality to be realized. Therefore, the claimed features of claim 156 is actually a software, or at best, directed to an arrangement of software, and software claimed by itself, without being executed or implemented on a computer medium, is non-statutory. Claims 157-183 are rejected for similar reasons.

***Claim Rejections - 35 USC § 102***

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

21. Claims 1 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Boneh et al. (US 7,113,594, cited on IDS dated 9/3/2008) referred to hereinafter by Boneh.

22. Regarding claim 1, Boneh teaches *a method for operating a public-key encryption scheme which provides for sending a digital message M between a sender and a recipient with participation of an authorizer, wherein the digital message is encrypted by the sender and decrypted by the recipient [abstract], the method comprising operation (S) wherein the operation (S) comprises the operation (e):*

*(e) encrypting the digital message using at least a recipient public key and a recipient encryption key (recipient identity information as further explained in step b of the claim 1) to create an encrypted digital message [Boneh, abstract and Figure 1].*

23. Claim 18 has the same limitations as claim 1 and hence same rejection is rational. Note that the examiner took in consideration one of the operations since the claim recites that *the method comprising one or more of operations (R), (Au), (S)*". As

Art Unit: 2432

explained in point 14 above, the examiner examined operation (S) since the method can comprise operation (S) alone.

24. Dependent claims 2-17, 19-26, 117-183, have not been treated on the merits in view of the 112 issues set forth above. It is unclear how the dependent claims relate to the operations mentioned in the independent claims and a coherent examination on the merits is not possible until the 112 issues are clarified.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HADI ARMOUCHE whose telephone number is (571)270-3618. The examiner can normally be reached on M-Th 7:30-5:00 and Fridays half day.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

/H. A./  
HADI ARMOUCHE  
Examiner, Art Unit 2432  
12/17/2008

/Gilberto Barron Jr/  
Supervisory Patent Examiner, Art Unit 2432